

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method of analyzing ~~expressed~~ opinions in a text document, said method comprising the steps of:

establishing a predetermined set of regular expressions, each regular expression of said predetermined set of regular expressions corresponding to a specific parts-of-speech (POS) tag sequence;

inputting and parsing words of at least one text-based said text document comprising opinions as parts of speech to provide a plurality of POS tag sequences; wherein said opinions comprise at least one of sentiments and connotations towards a topic, and wherein parts of speech tag sequences of said opinions comprise regularly occurring patterns;

extracting matching said predetermined set of regular expressions to said plurality of POS tag sequences from said text document by matching at least one regular expression rule with said parts of speech tag sequences, wherein said regular expression rule comprises said regularly occurring patterns to provide one or more extracted opinions; and

lexically analyzing each word of said one or more extracted opinions to group said one or more extracted opinions into clusters of extracted opinions.

categorizing said regular expressions as said opinions within categories of semantic orientation, said categorizing comprising analyzing words comprising said regular expressions; and

graphically displaying said categories of semantic orientation, wherein said displaying comprises displaying relative proportions of said opinions in said categories of semantic orientation.

2. (Currently Amended) The method of claim 1, all the limitations of which are incorporated herein by reference, wherein said ~~categories of semantic orientation~~ clusters of extracted opinions comprise any of positive sentiment and negative sentiment clusters of extracted opinions.

3. (Currently Amended) The method of claim 1, all the limitations of which are incorporated herein by reference, wherein said ~~categories of semantic orientation~~ clusters of extracted opinions comprise ~~favorable, unfavorable, and indifferent~~ any of positive, negative, and neutral clusters of extracted opinions.

4. (Cancelled).

5. (Cancelled).

6. (Currently Amended) The method of claim 1, all the limitations of which are incorporated herein by reference, further comprising ~~the step~~ organizing said clusters of extracted opinions into groups, wherein said one or more extracted opinions within each of said groups ~~each comprise~~ comprises a similar topic.

7. (Currently Amended) The method of claim 1, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises accessing a natural language database to ~~determine semantic orientations of said words comprising said regular expressions~~ to group said one or more extracted opinions into said clusters of extracted opinions.

8. (Currently Amended) The method of claim 1, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises

identifying ~~at least one~~ any of ~~synonyms and antonyms~~ a synonym and an antonym for said ~~words comprising said regular expressions~~ each word of said one or more extracted opinions.

9. (Currently Amended) The method of claim 1, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises determining ~~semantic orientations of a morphological stems~~ stem for said ~~words comprising said regular expressions~~ each word of said one or more extracted opinions.

10. (Currently Amended) A ~~computer program product comprising computer software recorded on a computer-readable medium for performing the steps of~~ program storage device readable by machine, tangibly embodying a program of instructions executable by said machine to perform a method of analyzing opinions in a text document, said method comprising:

establishing a predetermined set of regular expressions, each regular expression of said set of regular expressions corresponding to a specific parts-of-speech (POS) tag sequence;

inputting and parsing words of at least one text-based said text document comprising opinions as parts of speech to provide a plurality of POS tag sequences; wherein said opinions comprise at least one of sentiments and connotations towards a topic, and wherein parts of speech tag sequences of said opinions comprise regularly occurring patterns;

extracting matching said predetermined set of regular expressions to said plurality of POS tag sequences from said text document by matching at least one regular expression rule with said parts of speech tag sequences, wherein said regular expression rule comprises said regularly occurring patterns to provide one or more extracted opinions; and

lexically analyzing each word of said one or more extracted opinions to group said one or more extracted opinions into clusters of extracted opinions.

~~categorizing said regular expressions as said opinions within categories of semantic orientation, said categorizing comprising analyzing words comprising said regular expressions; and~~

~~graphically displaying said categories of semantic orientation, wherein said displaying comprises displaying relative proportions of said opinions in said categories of semantic orientation.~~

11. (Cancelled).

12. (Currently Amended) The ~~computer~~ program ~~product~~ storage device of claim 10, all the limitations of which are incorporated herein by reference, wherein said ~~categories of semantic orientation~~ clusters of extracted opinions comprise any of positive ~~sentiment~~ and negative ~~sentiment~~ clusters of extracted opinions.

13. (Currently Amended) The ~~computer~~ program ~~product~~ storage device of claim 10, all the limitations of which are incorporated herein by reference, wherein said ~~categories of semantic orientation~~ clusters of extracted opinions comprise ~~favorable, unfavorable, and indifferent~~ any of positive, negative, and neutral clusters of extracted opinions.

14. (Cancelled).

15. (Cancelled).

16. (Currently Amended) The ~~computer~~ program ~~product~~ storage device of claim 10, all the limitations of which are incorporated herein by reference, further comprising ~~the step~~ organizing said clusters of extracted opinions into groups, wherein said one or more extracted opinions within each of said groups ~~each comprise~~ comprises a similar topic.

17. (Currently Amended) The ~~computer~~ program ~~product~~ storage device of claim 10, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises accessing a natural language database to ~~determine semantic orientations of said words comprising said regular expressions~~ to group said one or more extracted opinions into said clusters of extracted opinions.

18. (Currently Amended) The ~~computer~~ program ~~product~~ storage device of claim 10, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises identifying ~~at least one~~ any of ~~synonyms and antonyms~~ a synonym and an antonym for said ~~words comprising said regular expressions~~ each word of said one or more extracted opinions.

19. (Currently Amended) The ~~computer~~ program ~~product~~ storage device of claim 10, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises determining ~~semantic orientations of a morphological stems~~ stem for said ~~words comprising said regular expressions~~ each word of said one or more extracted opinions.

20-28. (Cancelled).

29. (Currently Amended) The method of claim 1, all the limitations of which are incorporated herein by reference, further comprising marking said one or more extracted opinions in said text document with classification tags, wherein ~~each of~~ said classification tags correspond to ~~one of said categories of semantic orientation~~ said clusters of extracted opinions.

30. (Currently Amended) The ~~computer~~ program ~~product~~ storage device claim 10, all the limitations of which are incorporated herein by reference, further comprising marking said one or more extracted opinions in said text document with classification tags, wherein ~~each~~ of said classification tags correspond to ~~one of said categories of semantic orientation~~ said clusters of extracted opinions.

31. (Currently Amended) The method of claim [[1]] 41, all the limitations of which are incorporated herein by reference, wherein said graphically displaying comprises displaying said ~~categories of semantic orientation using at least one~~ clusters of extracted opinions using any of a pie-chart and a bar-chart.

32. (Currently Amended) The ~~computer~~ program ~~product~~ storage device of claim [[10]] 42, all the limitations of which are incorporated herein by reference, wherein said graphically displaying comprises displaying said ~~categories of semantic orientation using at least one~~ clusters of extracted opinions using any of a pie-chart and a bar-chart.

33. (Currently Amended) A method of analyzing ~~expressed~~ opinions in a text document, said method comprising the steps of:

establishing a predetermined set of regular expressions, each regular expression of said set of regular expressions corresponding to a specific parts-of-speech (POS) tag sequence;

inputting and parsing words of at least one text-based said text document comprising opinions as parts of speech to provide a plurality of POS tag sequences, wherein said opinions comprise at least one of sentiments and connotations towards a topic, and wherein parts of speech tag sequences of said opinions comprise regularly occurring patterns;

extracting matching said predetermined set of regular expressions to said plurality of POS tag sequences from said text document by matching at least one regular expression rule with said parts of speech tag sequences, wherein said regular expression

~~rule comprises said regularly occurring patterns to provide one or more extracted opinions;~~

~~categorizing said regular expressions as said opinions within categories of semantic orientation, said categorizing comprising analyzing words comprising said regular expressions;~~

~~lexically analyzing each word of said one or more extracted opinions to group said one or more extracted opinions into clusters of extracted opinions; and~~

~~at least one any of:~~

~~marking said one or more extracted opinions in said text document with classification tags, wherein each of said classification tags correspond to one of said categories of semantic orientation, said clusters of extracted opinions; and~~

~~graphically displaying said categories of semantic orientation clusters of extracted opinions, wherein said graphically displaying comprises at least one any of:~~

~~displaying relative proportions of said extracted opinions in said categories of semantic orientation, clusters of extracted opinions; and~~

~~displaying said categories of semantic orientation using at least one clusters of extracted opinions using any of a pie-chart and a bar-chart.~~

34. (Currently Amended) The method of claim 33, all the limitations of which are incorporated herein by reference, wherein said ~~categories of semantic orientation clusters of extracted opinions~~ comprise any of positive sentiment and negative sentiment clusters of extracted opinions.

35. (Currently Amended) The method of claim 33, all the limitations of which are incorporated herein by reference, wherein said ~~categories of semantic orientation clusters of extracted opinions~~ comprise favorable, unfavorable, and indifferent any of positive, negative, and neutral clusters of extracted opinions.

36. (Cancelled).

37. (Currently Amended) The method of claim 33, all the limitations of which are incorporated herein by reference, further comprising ~~the step~~ organizing said clusters of extracted opinions into groups, wherein said one or more extracted opinions within each of said groups ~~each comprise~~ comprises a similar topic.

38. (Currently Amended) The method of claim 33, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises accessing a natural language database to ~~determine semantic orientations of said words comprising said regular expressions~~ to group said one or more extracted opinions into said clusters of extracted opinions.

39. (Currently Amended) The method of claim 33, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises identifying ~~at least one any of synonyms and antonyms~~ a synonym and an antonym for said ~~words comprising said regular expressions~~ each word of said one or more extracted opinions.

40. (Currently Amended) The method of claim 33, all the limitations of which are incorporated herein by reference, wherein said ~~categorizing of said regular expressions~~ lexically analyzing each word of said one or more extracted opinions comprises determining ~~semantic orientations of a~~ morphological ~~stems~~ stem for said ~~words comprising said regular expressions~~ each word of said one or more extracted opinions.

41. (New) The method of claim 1 further comprising graphically displaying said clusters of extracted opinions, wherein said graphically displaying comprises displaying relative proportions of said extracted opinions in said clusters of extracted opinions.

42. (New) The method of claim 10 further comprising graphically displaying said clusters of extracted opinions, wherein said graphically displaying comprises displaying relative proportions of said extracted opinions in said clusters of extracted opinions.